Criminal Justice Review
Volume 30, Number 2
September 2005 155-173

10.1177/0734016805284146
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Recidivism Rates of Sexual Offenders up to 7 Years Later

Does Treatment Matter?

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This article critically reviews the evidence on sex offender treatment and subsequently provides new estimates on short-term recidivism among sexual offenders released from prison in New Jersey. The sample of male sex offenders is drawn from the Adult Diagnostic Treatment Center (ADTC), New Jersey's only sex-offender-specific prison, and the general population of nine prisons within the state of New Jersey. The ADTC sample receives treatment while incarcerated ($n = 495$), whereas no treatment is provided to the offenders in the general population sample ($n = 223$). Overall, 33% of the total sample ($N = 718$) commits a new offense. Of the total sample, 14% commits a new sexual offense and 24% commits a new nonsexual offense. Significant differences exist between the ADTC and the general population samples with respect to nonsexual reoffending only. In the final analysis, treatment appears to matter in terms of a reduction in recidivism but not in conventionally expected ways.

Keywords: *sexual offense; treatment and recidivism*

During the 1990s, states implemented a variety of policies that applied to sexual offenders, including community registration, notification, and civil commitment (American Psychiatric Association [APA], 1999; La Fond, 2005; Lalumiere, Harris, Quinsey, & Rice, 2005; Matson & Lieb, 1997; Prentky & Burgess, 2000; Winick & La Fond, 2003). Although these policies varied in their designs, their primary goal was risk reduction, protecting the public from sexual offenders. Treatment programs for sexual offenders, in concert, focus on building impulse control capacities to effectively manage these behaviors and, by doing so, reduce the risk of reoffending (Cornwell, Jacobi, & Witt, 1999). For this reason, the social value of offender treatment programs is determined by a single outcome: the offender's level

Author's Note: This study was funded by the New Jersey Department of Corrections. The authors would like to thank Commissioner Devon Brown, Dr. Douglas Gerardi, Mr. Donald Van Nostrand, Dr. Bonita Veysey, Ms. Susan Estwan, and Dr. Travis Pratt for their invaluable contributions and support. Additionally, many thanks to the anonymous reviewers.

of recidivism. But, recognizing that sexual offending may be an enduring tendency for some offenders, reoffending behavior is monitored throughout time. Postincarceration studies have examined patterns of reoffending at different time intervals, with the most common being 1-year, 3-year, 5-year, and 10-year postrelease from prison (APA, 1999; Furby, Weinrott, & Blackshaw, 1989; Hanson, Steffy, & Gauthier, 1993; Soothill & Gibbens, 1978).

The time-varying nature of reoffending behavior postincarceration is particularly critical from the public's perspective. Public attention has tended to focus on reoffending in the period immediately following incarceration (e.g., 1 year, 3 years). This focus was partly fueled by the 1989 disappearance of Jacob Wetterling and the tragic death of Megan Kanka in the 1990s (Baldau, 1998; Zgoba, 2004). The attention paid to these cases has led the public to wonder whether correctional policies have allowed high-risk sexual offenders to be placed in communities inappropriately or without appropriate safeguards. These concerns have stimulated efforts to more comprehensively assess the reoffending risk of sexual offenders prior to release and the development and implementation of new intensive monitoring and surveillance programs for sexual offenders placed in the community.

Even with these initiatives in place, the public is wary of the risks associated with the placement of sexual offenders in the community. The concern appears to be most elevated in the first few years postrelease. The fact that these individuals have been carefully screened for risk and are closely supervised does not allay concerns that this individual, known only as a sexual offender, may harm a child or woman in the community. Assurances of risk assessment and monitoring are unlikely to assuage public concern if it is not backed by strong, consistent empirical evidence.

Nonetheless, the evidence necessary for informing and assuring the public and policy makers is limited. As will be indicated throughout the course of this article, sex offender treatment studies have been fraught with methodological problems, and their level of efficacy has not been definitively established (Bynum, 2001; La Fond, 2005; Winick & La Fond, 2003). It is the purpose of this study to address and reduce many of the methodological dilemmas that have overwhelmed earlier analyses, while adding new findings on sexual offender reoffending patterns. This article explores the evidence and provides new results on shorter term recidivism among male sexual offenders released from prison and the incremental impact of treatment and additional years in the community on recidivism. The article begins by describing patterns of male sexual offending behavior and the empirical evidence on recidivism among sexual offenders postincarceration, including the evidence on treatment effectiveness for sexual offending as measured by recidivism patterns throughout variable time periods. The next section provides new estimates of recidivism rates for treated and untreated sexual offenders released from incarceration from 1994 through 1997. The article concludes with a discussion of the findings and their implications for thinking about when treatment matters and what steps need to be taken to advance sex offender research in an effort to better inform practice and public policy. This analysis builds on previous studies that have found sex offender treatment to have an effect on nonsexual reoffending. Additionally, the attention to the methodology strengthens what has historically been a weaker design.

Review of the Evidence on Sexual Offending

Prevalence of Sexual Offending

Sexual offending is a broad term that includes hands-on offenses, hands-off offenses (i.e., voyeurism and exhibitionism), child and adult sexual offenses, and both violent and nonviolent offenses. Although more than 380,000 sexual assaults were reported in 1999, reported assaults are expected to underestimate the number of actual sexual offenses by approximately one third (Belknap, 2000; U.S. Department of Justice, Bureau of Justice Statistics [BJS], 2001). Official statistics on sexual victimization translate into just more than 1 sexual assault for every 1,000 persons aged 12 and older in the United States (Rennison, 2002). As noted by Freeman-Longo and Blanchard (1998), sexual assault is a crime that knows no boundaries. The victims of sexual abuse are representative of both genders and all racial/ethnic, educational, and socioeconomic groups.

As mentioned above, official sexual offending rates, like official annual crime statistics, understate the true level of offending behavior in the community. Victims of sexual offending often choose not to report the offense (APA, 1999; Belknap, 2000; Furby et al., 1989; Hall, 1995; Hanson & Bussiere, 1998). Although legal definitions, embarrassment, and a desire for privacy are the main reasons for underreporting, there are some types of sexual abuses that are more accurately represented in official records. For instance, victims of stranger rape are more likely to report the offense compared to incest victims because they are more willing to speak out against an unknown offender than a family member (Belknap, 2000; Chesney-Lind, 1997). For these reasons, it is often difficult to provide an accurate statistical picture of the types of sexual offenses committed at any point in time or how frequently such offenses occur in the community (Belknap, 2000; Chesney-Lind, 1997).

Measuring Sexual Offense Recidivism and Its Variation

Conceptually, recidivism refers to the commitment of a new offense by an offender previously arrested, convicted, or incarcerated for an offense. Recidivism can be consistent with the previous type of crime, in this case a sexual offense, or it can be for a different type of crime altogether (La Fond, 2005). Although the definition or type of recidivism varies by study, at the most basic level, it includes an arrest for some type of reoffense.

The central issue regarding sexual offenders concerns their propensity to reoffend. Empirical studies have reported recidivism levels as high as 50%, whereas other studies have found substantially lower levels of offending, approximately 0% to 11% (Furby et al., 1989; Lieberman, 1996; Maletzsky, 1996; *Ohio Department of Rehabilitation and Correction*, 2001). The pattern of wide variation in recidivism rates found in the literature raises concern among researchers, practitioners, and the public alike. Yet whether such concern is warranted depends less on the behavior of offenders and more on the scientific methods underpinning the construction of these statistics.

Methodological disparities can be expected to explain some of the wide variation in recidivism rates among sexual offenders. One source of methodological variation across studies concerns the definition of recidivism. Recidivism can be defined broadly as any new offense or more narrowly as either any new sexual offense or a new sexual offense of the same type. For example, Rice, Quinsey, and Harris (1991) found that 58% of their sample was arrested

for any new offense during the 6-year follow-up period, compared to 31% for a new sexual offense. Adding to the definitional complexity is the interpretation of a technical violation or an institutional infraction. Certain studies count a technical violation as a form of recidivism, which broadens the definition of recidivism further and produces potentially larger recidivism rates (APA, 1999). In the absence of any research standard regarding the most appropriate definition of recidivism, the method of operationalizing the term becomes particular to the study and its focus (Furby et al., 1989). However, this invites nonrandom variation into the estimate.

Another source of methodological variation concerns the validity of the data used to measure recidivism. The validity of recidivism data refers to the level of accuracy in reporting actual rates of reoffending. Recidivism data may measure a rearrest, reconviction, or reincarceration. Calculating recidivism based on rearrest data represents the lowest level of accuracy because many of these cases will not proceed to convictions, whereas rates based on reconviction or reincarceration data reflect the highest level of accuracy. In general, higher levels of recidivism can be expected from studies using rearrest data than those using reconviction or reincarceration data because although all three types of criminal justice encounters involve a new arrest, only a subset of the new arrests progress to a new conviction or incarceration. By contrast, studies using a combination or comparison of rearrest, reconviction, and reincarceration produce the most valid estimates (APA, 1999; La Fond, 2005).

An additional methodological issue affecting recidivism rates concerns the level of aggregation within the population of sexual offenders. It is common to report rates of recidivism for all sexual offenders. But this only makes sense if all sexual offenders are the same. The evidence is pretty clear here: Rates of reoffending among sexual offenders have been found to be extremely heterogeneous. For example, rapists are reported to have the highest levels of recidivism, followed by extrafamilial child molesters and incest offenders (APA, 1999; Freund, Watson, and Dickey, 1991; Malcolm, Andrews, & Quinsey, 1993; Marshall & Barbaree, 1988). Calculating a composite recidivism rate for all sexual offenders implicitly assumes away these differences and, in effect, conceals important intragroup differences. This averaging process generates a recidivism rate that is weighted by the relative representation of the different types of offender types in the sample. To minimize the effect of sample composition on rates of recidivism, these rates are more meaningful if estimated for relatively homogeneous subcategories of sexual offenders, such as rapists or child molesters (APA, 1999; Furby et al., 1989; Hanson & Bussiere, 1998; Prentky, Lee, Knight, & Cerce, 1997).

Another source of methodological variation concerns the definition of the follow-up time period. Simply put, the longer the length of follow-up, the wider the window of opportunity to reoffend and the higher the rate of detection of recidivism (APA, 1999; Furby et al., 1989; Hanson et al., 1993; Prentky et al., 1997; Soothill & Gibbens, 1978). Given the time-varying nature of sexual offender recidivism, it makes sense to track recidivism throughout time and at intervals that address public concerns about the readiness of sexual offenders to live in the community (postincarceration) and how their readiness might change as more time elapses postrelease. Most research studies have focused on longer time intervals, ranging from 5 to 30 years. These studies record substantial levels of recidivism post–initial incarceration (Furby et al., 1989; Hanson et al., 1993; Prentky et al., 1997). Yet follow-up periods with shorter durations (e.g., 1 year, 3 years) are critical as well because they speak to issues of

readiness that concern the public, as well as provide a more complete picture of recidivism throughout time, while also facilitating interstudy comparisons (Furby et al., 1989).

Research on the Effectiveness of Treatment of Sexual Offenders

Issues of sexual offender recidivism and treatment of sexual offenders are inextricably linked. Treatment is often judged as ineffective or effective based on the relative rate of recidivism among treated and untreated sexual offenders. The research evidence on the effectiveness of treatment of sexual offenders is mixed, with more supportive evidence emerging in recent years. Beginning in the 1970s, influential organizations, such as the Group for the Advancement of Psychiatry, the American Bar Association, and the President's Commission on Mental Health, posited that specialized sexual offender treatment is an ineffective tool that "brings the illusion of benevolence" (APA, 1999, p. 14). Much of this position can be contributed to a meta-analysis published in 1989. Using strict criteria of inclusion, Furby et al. (1989) concluded, based on their review of 42 studies, that very little is known about the recidivism patterns of sexual offenders and what is known suggests that there is little to no difference in reoffending among clinically treated and untreated sexual offenders. The chilling effect of these results on sexual offending treatment mirrors the effect of the classic Martinson study in the early 1970s on general criminal rehabilitation. Consequently, sex offense researchers and policy makers were left with a sense that nothing works, a belief that has long since influenced the field (Martinson, 1974; Nicholaichuk, Gordon, Gu, & Wong, 2000; Zgoba, Sager, & Witt, 2003).

In 1995, Hall published a slightly more optimistic follow-up study on sexual offending treatment using the same methodological design as Furby et al. (1989), but it applied to studies published after their review. According to Hall's evidence, cognitive-behavioral sex offender treatment and hormonal treatments did result in a small improvement relative to comparison condition (as cited in Nicholaichuk et al., 2000). More specifically, Hall found that 19% of the treated sexual offenders committed a sexual reoffense and 27% of the untreated comparison group committed a new sexual offense. However, this meta-analysis has recently been called into question because of its validity (La Fond, 2005).

A follow-up meta-analysis conducted by Hanson and Bussiere (1998) contained 61 studies with an overall sample size of 23,393 sexual offenders. On average, the sexual offense recidivism rate was found to be low, with 13.4% of the sample recommitting a sexual offense. Particular subgroups of sexual offenders, as well as offenders who prematurely terminated treatment, recidivated at higher levels. The results of this analysis suggest that there are different predictors for nonsexual and sexual recidivism among offenders (Hanson & Bussiere, 1998).

A subsequent and more recent meta-analysis conducted by Hanson, Gordon, and Harris (2002) examined the effectiveness of psychological treatment for sexual offenders by summarizing 43 studies, resulting in a sample size of 9,454. Similar to the previous meta-analysis, the sexual reoffense rate was lower for the treatment group (12.3%) versus the comparison group (16.8%). Similar patterns were detected for rates of general recidivism, although the rates were predictably higher. Current psychological sex offender treatments, namely cognitive behavioral treatment, were associated with reductions in both general and sexual recidivism (Hanson et al., 2002). On the whole, as meta-analyses have evolved with an

increase in methodological clarity, the picture of sexual offender efficacy has begun to look slightly more optimistic. However, the issue of sex offender treatment efficacy has yet to be firmly established.

Reoffending Among Male Sexual Offenders Released From New Jersey Prisons

Study Design

This longitudinal study examines the recidivism of two groups of sexual offenders in New Jersey: male sexual offenders receiving specialized treatment at the Adult Diagnostic Treatment Center (ADTC)[1] and male sexual offenders receiving no treatment while incarcerated in the general population. The sample includes all sexual offenders released from the ADTC and the general population during the years 1994 through 1997. The sample of sexual offenders included only male offenders because of the exceptionally low number of female sex offenders incarcerated or released from New Jersey institutions. Each sample was followed until January 2001, providing a variable follow-up time period. These time frames range from approximately 7 years at risk for the 1994 released offenders to 4 years at risk for the 1997 cohort. The value of these moderate periods addresses both the public's immediate and short-term concerns about postrelease risk, whereas the focus on treatment informs the discussion about whether treatment reduces recidivism.

Recidivism is divided into two distinct categories: nonsexual recidivism and sexual recidivism. Nonsexual recidivism includes all types of reoffenses that cannot be considered sexual in nature. Sexual recidivism is defined as any offense that is sexual in nature. It is not, however, necessary that it be consistent with the instant sexual offense. The rearrest, reconviction, and reincarceration rates of offenders are used in combination in an effort to increase the validity of the study. In addition, sexual offenders are grouped by the type of instant sexual offense to gain a clearer picture of how recidivism rates vary among sexual offender types.

Study Sample

The New Jersey Department of Corrections comprises 13 male facilities. The sample of sexual offenders was released either from the ADTC or one of the other male prisons (general population) during the previously mentioned 4-year period: 1994 through 1997. No large differences existed among the sample sizes for the cohort years. Each of the cohort samples equaled approximately 25% of the total (all years) sample. The 4-year time period yielded a full sample of 495 ADTC offenders and 223 general population sexual offenders ($N = 718$). The ADTC sample met the following criteria: They were considered repetitive, compulsive sexual offenders who were amenable and willing to be treated. Offenders who have committed sexual offenses but do not satisfy the criteria for incarceration at the ADTC are sentenced to one of the other institutions. These individuals do not receive sexual offender treatment at these other facilities.

The ADTC is the only facility in New Jersey that provides for the specific treatment and incapacitation of sexual offenders. The treatment offered to sexual offenders at the ADTC is consistent with other North American treatment programs; both cognitive-behavioral treatment and relapse prevention are offered to offenders (Freeman-Longo, Bird, Stevenson, &

Fiske, 1995; Zgoba et al., 2003). Cognitive-behavioral treatment regimens focus on reconstructing an offender's cognitive distortions, and relapse prevention programs teach offenders to recognize the pattern that leads up to their eventual offending (APA, 1999; Cornwell et al., 1999; La Fond, 2005; Zgoba et al., 2003). This treatment combination is offered to offenders under a hierarchy of five levels, with each level building on the level previous to it. Once the offender graduates to the fifth level of involvement, he assumes additional responsibilities and makes an effort at maintaining the gains he has made in treatment.

Data Sources

The data used were drawn from the New Jersey State Police Computerized Criminal History System and the National Crime Information Center's Interstate Identification Unit. Through these sources, offending information was obtained for New Jersey as well as other U.S. jurisdictions during the 7-year follow-up. Offending histories were abstracted from the New Jersey Department of Correction's Offender Based Correctional Information System.

Case record reviews were conducted, and the following information was extracted: site of release (ADTC or general population), the release year, whether the offender was diagnosed as repetitive and compulsive, age of the offender at the time of release, age and gender of victim, and number of prior arrests and convictions for sexual and nonsexual offenses. The number of rearrests, reconvictions, and reincarcerations was disaggregated by sexual and nonsexual offenses. In addition, the date of the rearrest was recorded to analyze the time elapsed between release and reoffense.

Results

Description of Prerelease Offense History

As shown in Table 1, the majority of the 718 sexual offenders had been in prison for sexual offenses involving incest or child molestation. Comparatively, rape was a less common offense type among the sexual offenders in both the ADTC and general population samples, although the percentage of offenders with rape offenses was 3.5 times higher in the general population sample than the ADTC sample, χ^2 (df = 1) = 49.06, p = .000. The victim of these offenses was predominately younger than the age of 18 and female, particularly for the general population sample. Differences were found in victim age between the facility samples. Victims younger than 11 were more likely among the offenders in the ADTC sample, χ^2 (df = 1) = 6.232, p = .013, whereas victims age 18 or older were more likely among offenders in the general population sample, χ^2 (df = 1) = 42.483, p = .000. In both facility samples, the average age of victims of offenses involving incest or child molestation was 9.6, compared to older than 20 years of age for the victims of rape offenses.

Because rates of recidivism and offense characteristics have been found to vary between rapists and other sexual offenders (APA, 1999; Freund et al., 1991; Malcolm et al., 1993; Marshall & Barbaree, 1988), the sample was categorized and then compared by type of instant offense: rape or incest/child molestation. Also, given that the central focus of the analysis concerns the effectiveness of treatment, offender types are organized by facility, with the ADTC equaling the prerelease treatment group and the general population equaling the no prerelease treatment group.

Table 1
Instant Offense Characteristics for the Full, ADTC, and General Population Samples

Variable	Full Sample (N = 718)	ADTC Sample (n = 495)	General Population Sample (n = 223)
Instant offense type			
Incest	38.2	40.0	34.1
Child molestation	34.5	35.4	32.7
Rape	14.2	8.1	27.8[a]***
Missing data	13.1	16.5	5.4
Victim gender			
Male	17.4	18.6	14.8
Female	66.2	61.0	77.6***
Both genders	2.8	3.2	1.8
Missing data	13.6	17.2	5.8
Victim age			
0 to 10 years	41.4	44.4	34.5**
11 to 17 years	33.3	33.7	32.3
18+ years	8.3	3.8	18.4***
Missing data	17.0	18.1	14.8

Note: ADTC = Adult Diagnostic Treatment Center.
a. All statistics represent a difference between the ADTC and General Population Samples. All figures are percentages.
*$p \leq .05$. **$p \leq .01$. ***$p \leq .001$.

Looking first at the full sample in Table 2, compared to the incest and child molestation offender group, the rape offender group was significantly younger ($t = -4.022$, $p = .000$) and more likely to have at least one prior sexual arrest, χ^2 (df=1)= 12.512, p=.002, a prior sexual conviction, χ^2 ($df = 1$) = 9.588, $p = .008$, a prior nonsexual arrest, χ^2 ($df = 1$) = 20.717, $p = .000$, and a prior nonsexual conviction, χ^2 ($df = 1$) = 11.742, $p = .003$.

There are also noteworthy differences between offender types and between facilities. First, for nonsexual offenses, the variable of any prior conviction rates for the ADTC and general population samples, independent of offender type, is more than 30% below the variable of any prior arrest rates. This suggests that more released offenders were arrested than were ever convicted for a nonsexual offense. This same pattern is found for sexual offending for the general population sample. A different pattern is found for the ADTC sample for sexual reoffending—the any prior arrest and convictions rates are remarkably similar. There were also several significant differences in the offender groups between facilities. In general, the ADTC offender rape group, compared to the general population rape group, was more likely to have at least one prior sexual conviction, χ^2 ($df = 1$) = 9.922, $p = .002$. Nonsexual offending, however, was consistently higher in the general population group, independent of offender type.

Description of Recidivism Rates

Table 3 shows recidivism rates postrelease by offender type and facility. Overall, 33% of the full sample recidivated at some point during the variable follow-up period, whereas in the first 3 years in the community, 8.5% of the full sample sexually recidivated (not shown in table). Compared to the incest and child molestation group, recidivism is significantly more

Table 2
Prior Criminal History Characteristics for the Full, Incest and Child Molestation, and Rape Samples

	Full Sample ($N = 718$)		Incest and Child Molestation Sample		Rape Sample	
Variable	Incest and Child Molestation ($n^a = 522$)	Rape ($n = 102$)	ADTC Sample ($n = 373$)	General Population Sample ($n = 149$)	ADTC Sample ($n = 40$)	General Population Sample ($n = 62$)
Offender age at release						
M	41.7	37.8**	42.6	39.4*	38.2	37.6
SD	11.7	8.4	11.8	11.1	8.1	8.6
Any prior sexual arrests (%)	21.8	38.2*	21.4	22.8	45.0	33.9
Any prior sexual convictions (%)	14.0	23.5*	15.5	10.1	40.0	12.9*
Any prior nonsexual arrests (%)	46.0	70.6**	41.0	58.4**	55.0	80.6*
Any prior nonsexual convictions (%)	32.8	49.0*	28.5	43.5*	32.5	59.7*

a. Sample sizes may not add to the total because of missing data.
*$p \leq .01$. **$p \leq .001$.

Table 3
Recidivism Characteristics for the Full, Incest and Child Molestation, and Rape Samples

	Full Sample ($N = 718$)		Incest and Child Molestation Sample		Rape Sample	
Variable	Incest and Child Molestation ($n^a = 522$)	Rape ($n = 102$)	ADTC Sample ($n = 373$)	General Population Sample ($n = 149$)	ADTC Sample ($n = 40$)	General Population Sample ($n = 62$)
Sexual rearrest	12.6	17.6	11.3	16.1	15.0	19.4
Sexual reconviction	8.1	9.3	7.9	8.7	12.8	6.9
Sexual reincarceration	4.2	5.9**	4.0	4.7	7.5	4.8
Nonsexual rearrest	19.4	44.1***	15.5	29.1***	25.0	56.5**
Nonsexual reconviction	13.3	31.6***	10.4	20.7**	18.4	40.4*
Nonsexual reincarceration	7.3	15.7*	4.0	15.4***	7.5	21.0

a. Sample sizes may not add to the total because of missing data.
*$p \leq .05$. **$p \leq .01$. ***$p \leq .001$.

likely among the rape offender group but only for sexual rearrest, nonsexual rearrests, nonsexual reconvictions, and nonsexual reincarceration. Compared to nonsexual recidivism, sexual recidivism is considerably less common for the rape offender group. Within the incest and child molestation group, nonsexual recidivism rates are at least 1.5 times higher than the sexual recidivism rates.

Looking between facility types, there are several noteworthy differences in recidivism rates. First, there are no significant differences between sexual recidivism rates for the incest and child molestation or rape groups by treatment. For both the treated (ADTC) and untreated (general population), less than 1 in 10 offenders in the incest and child molestation group was reconvicted on a sexual offense and less than 1 in 20 was reincarcerated on a sexual offense. Second, recidivism was higher for nonsexual recidivism for both offender types and significantly higher for the general population (untreated) sample compared to the ADTC (treated) sample independent of offender type. Third, for the incest and child molestation group, the reincarceration rates for both the ADTC and general population samples are roughly one third of their sexual rearrest rates, meaning that only 1 in 3 offenders rearrested on sexual offenses was reincarcerated. By contrast, roughly half of the offenders with a nonsexual rearrest in the general population sample had been reincarcerated, compared to a quarter in the ADTC sample. For the rape group, the pattern is reversed. Half of the offenders in the ADTC rearrested on sexual offenses were reincarcerated, compared to only a quarter of those in the general population sample. This pattern did not persist for nonsexual offenses. Here, roughly a third of those rearrested on nonsexual offenses in both the ADTC and general population samples were reincarcerated.

Analysis of Recidivism Rates

Multiple logistic regression analysis was used to predict the probability of recidivism (measured as a reconviction), controlling for previous criminal history and exposure to treatment in prison. Logistic regression techniques were used because the variable of reconviction manifested itself as a natural dichotomy—the offenders either had no reconvictions, or they had one reconviction. Analyses were conducted to predict overall recidivism, sexual recidivism, and nonsexual recidivism. The predictor variables were consistent across the three analyses. A survival analysis was also conducted to examine sexual reoffending patterns between the treated (ADTC) and untreated (general population) samples throughout time.

As shown in Table 4, overall recidivism was 2.4 times higher for the general population sample, compared to the ATDC sample (Model 1), holding everything else constant. This suggests that sexual offender treatment is associated with lower overall recidivism. But the association between treatment and recidivism is significant only for nonsexual recidivism (Model 3). There is no significant difference in the probability of sexual reoffending between the general population (untreated) and the ADTC (treated) groups (Model 2).

The probability of sexual reoffending is significantly related to several attributes of the offender (Model 2). In general, the likelihood of sexual reoffending increases with time in the community but not in a linear fashion. Compared to those offenders in the community, for less than 4 years, the marginal increment of additional time in the community (e.g., 1, 2, or 3 years more) increases the likelihood of reoffending by roughly a factor of 2. Said somewhat differently, sexual reoffending rates in the first 3 years postrelease continue at roughly the same rate thereafter.

Table 4
Logistic Regression Predicting the Odds of Overall Recidivism, Sexual Recidivism, and Nonsexual Recidivism

	Model 1 Overall Recidivism			Model 2 Sexual Recidivism			Model 3 Nonsexual Recidivism		
Predictor	Logit	*SE*	*OR*	Logit	*SE*	*OR*	Logit	*SE*	*OR*
General population	0.876	.217	2.401***	0.178	.277	1.195	0.759	.234	2.137***
Months at risk[a]									
0 to 84	0.506	.299	1.658	0.819	.391	2.268*	0.208	.324	1.232
0 to 72	0.752	.271	2.120**	0.717	.371	2.047*	0.680	.286	1.974*
0 to 60	0.315	.280	1.371	0.783	.376	2.187*	–0.169	.311	0.845
Age at release[b]									
20 to 30	2.107	.401	8.222***	1.391	.562	4.019**	2.383	.489	10.836***
31 to 40	1.658	.368	5.247***	1.517	.506	4.559**	1.797	.462	6.030***
41 to 50	0.910	.384	2.483**	0.867	.528	2.380	1.017	.484	2.767*
Male victim[c]	–0.003	.254	0.997	–0.242	.332	0.785	0.146	.277	1.157
Any prior sexual arrests[d]									
One arrest	0.528	.270	1.695*	0.822	.316	2.275**	0.305	.292	1.357
Two or more arrests	0.804	.348	2.235*	1.111	.391	3.036**	0.545	.373	1.725
Any prior nonsexual arrests[d]									
One arrest	–0.122	.297	0.865	0.043	.401	1.044	–0.256	.338	0.774
Two or more arrests	1.048	.227	2.853***	0.842	.289	2.321**	0.976	.248	2.654***
Rape[e]	0.466	.263	1.594	–0.258	.337	0.773	0.685	.271	1.984**
–2 log likelihood	616.608			426.888			538.330		
χ^2	138.620***			48.051***			117.778***		
Adjusted R^2	.288			.141			.268		

a. Reference category is the earliest cohort, 0 to 48 months.
b. Reference category is the oldest category of offenders, age 50 or older at release.
c. Reference category is female victim.
d. Reference category is no prior arrests.
e. Reference category is incest and child molestation.
*$p \leq .05$. **$p \leq .01$. ***$p \leq .001$.

Age at release is also significantly related to the probability of sexual reoffending. Younger male offenders (age 20 to 40) have considerably higher levels of sexual reoffending than male offenders who were older than 50 at the time of release. More specifically, compared to this older group of offenders, offenders ages 31 to 40 at the time of release are 4.5 times more likely to commit a new sexual offense postrelease from prison.

Previous criminal history predicts sexual recidivism as well. Offenders with previous sexual arrests or two or more nonsexual arrests were significantly more likely to commit another sexual offense. For example, compared to an offender with no previous sexual or nonsexual arrests, an offender with two or more sexual and nonsexual arrests is 5 times more likely to commit a new sexual offense, everything else equal. If this person is also age 31 to 40 at the time of release, his odds of sexually reoffending increase to 9.5 times, compared to someone older than 50 with the same criminal history.

Similar results were found for nonsexual recidivism, with the notable exceptions of the effect of time and whether there was any prior sexual offending. Nonsexual reoffending does not continue to increase with more time in the community. In addition, the probability of new nonsexual reoffending is not associated with sexual offending prior to the instant offense, but it is positively associated with an instant offense of rape. Compared to offenders with an instant offense of incest or child molestation, offenders with a rape instant offense are twice as likely to be convicted of a new nonsexual offense.

The Kaplan-Meier survival analysis provided a second multivariate approach to examining the sexual reoffense patterns of the ADTC and general population samples. This method compares the time between the offenders' release from incarceration and the outcome measure (offenders' sexual rearrest date). Figure 1 shows the survival curves for the ADTC group and the general population samples. Although the shapes of survival curves are similar, offenders released from the ADTC have a mean survival time of 29 months compared to the mean survival time of 35 months for the general population sexual offenders. The survival times between the two groups were not significant (log rank statistic = 1.48, $p > .05$; Breslow statistic = 1.81, $p > .05$; and Tarone-Ware statistic = 1.80, $p > .05$).

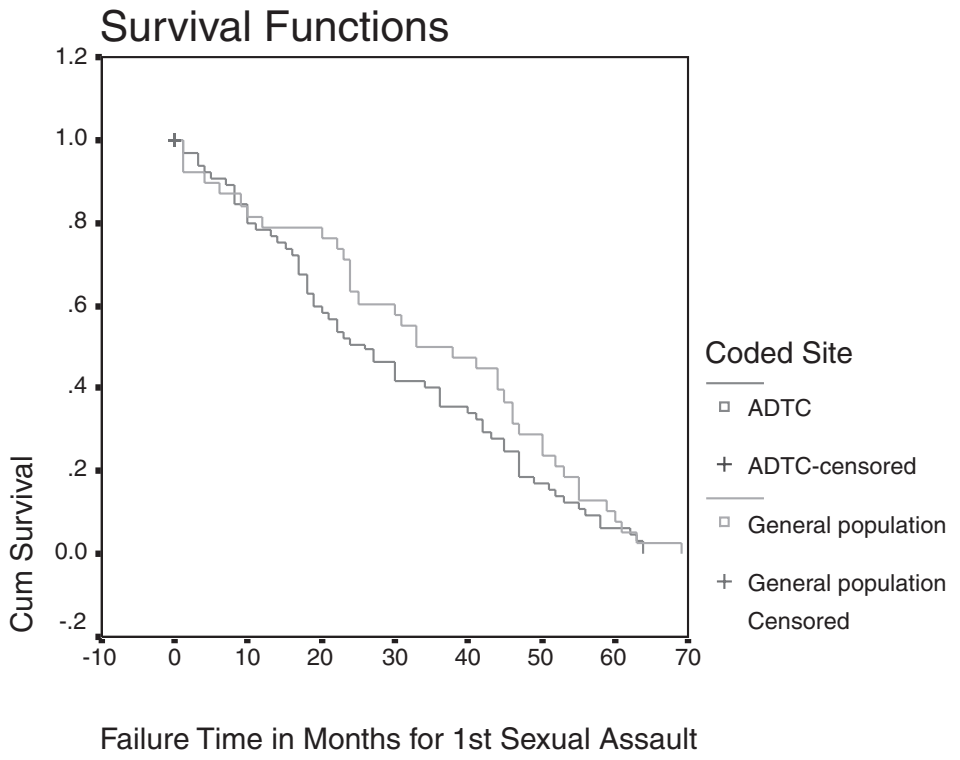
Discussion and Conclusion

Discussion

The central issue addressed in this article is whether treatment matters in terms of recidivism. Part of the reason for why this issue has not been resolved stems from methodological imprecision, with studies measuring recidivism differently, measuring it for different periods of time, and combining together the behaviors of different types of sexual offenders. It was the purpose of this study to address and reduce many of the methodological dilemmas that have overwhelmed earlier analyses, adding new findings on sexual reoffending patterns.

In an attempt to measure recidivism and the effect of treatment more precisely, the estimates in this article were disaggregated in three distinct ways. First, criminal behavior was categorized by sexual and nonsexual offending. This permitted more detailed analyses into the variation in recidivism rates by patterns of offending behavior and whether differences in prior offending behavior (sexual vs. nonsexual) affected recidivism rates in different ways. In addition, recidivism rates were subdivided into three types of reoffending—rearrest, reconviction, and reincarceration—in an effort to more comprehensively and accurately

Figure 1
Survival Analysis for Sexual Reoffenses



Note: ADTC = Adult Diagnostic Treatment Center.

measure reoffending behavior. Second, the sample of released offenders was grouped by their instant sexual offense type: rape or incest and child molestation. The motivation for these sexual crimes is different, as are the victim types (APA, 1999; Lin-Min, Maxwell, & Barclay, 2000; Schwartz & Cellini, 1995), and for these reasons, it is important to study them as unique types of sexual offenders. Third, the released sexual offenders in the full sample did not all receive sexual offender treatment during their incarceration. Only the ADTC sample received treatment. For this reason, the full sample was divided into treated (ADTC) and untreated (general population) samples to test for the effect of sexual offender treatment on more precisely defined recidivism rates.

It is important first to note that even with the more all-inclusive measures of recidivism, the rates of reoffending among sexual offenders are low. Roughly, less than 1 in 10 was sexually reconvicted. In other words, during the first 3 years postrelease, 92% of the full sample did not sexually recidivate. The rates of sexual reoffending, however, did vary by treatment group. Approximately 9.0% of sexual offenders released from the ADTC were sexually reconvicted, compared to 8.2% of those released from the general population. As one would expect the treated group to have lower recidivism numbers, this finding indicates that sexual offender treatment had little to no effect on sexual reoffending patterns. However, 12.3% of the ADTC sample had a nonsexual reconviction, compared to 26.8% in the general popula-

tion sample, indicating that the sex offender treatment may have had an effect on nonsexual reoffending.

These findings suggest that sex offending treatment matters in terms of reoffending but not in the expected way of decreasing sexual reoffending. A number of conclusions can be culled from the results presented here. First, if recidivism is defined broadly, as in any type of reoffending (sexual and nonsexual combined), the treated group of sexual offenders, compared to the untreated group of sexual offenders, was found to have a significantly lower likelihood of reoffending. This leads one to believe that sex offender treatment matters in terms of overall reoffending. However, a second finding illustrates that this does not persist if recidivism rates are decomposed by sexual reoffending type. The likelihood of sexual reoffending was not significantly different between the treated and untreated groups. As a matter of fact, the sexual recidivism rate for the treated sexual offenders was slightly higher than that of the untreated sexual offenders (by approximately 1%). Third, as a seeming paradox, sexual offender treatment is associated with reducing the likelihood of nonsexual offending. Treated sexual offenders were found to have statistically lower levels of nonsexual reoffending. This finding is not unusual and is similar to those reported by Berliner, Schram, Miller, and Milloy (1995) in the Washington State Sex Offender Sentencing Alternative and Marques, Day, Nelson, and West (1994) in California's Sex Offender Treatment and Evaluation Project (SOTEP). Berliner et al. (1995) found that sexual offenders participating in an alternative treatment program and the control group had comparable levels of sexual recidivism, whereas the treatment group of sexual offenders had significantly lower rates of nonsexual recidivism. Marques et al. (1994) reported similar findings with SOTEP. No positive effect on sexual recidivism was indicated for the treatment or control group. However, sex offenders who completed treatment had lower rates of nonsexual recidivism than the control group. The findings presented in this article build on the results provided by other studies that find sexual offender treatment to have an effect on overall reoffending and nonsexual reoffending as opposed to the specific, intended type of offending. As a result, this misdirection of a treatment effect may call into question the validity of sex-offender-specific treatment.

This finding also suggests characteristics of sexual offenders that may predict reoffending and that could be used to identify groups that would most benefit from treatment and continued monitoring postrelease. Sexual offenders who are younger than 40 and who have had at least one prior arrest for a sexual offense and two prior arrests for a nonsexual offense are 9 times more likely to sexually reoffend compared to sexual offenders older than 40 who do not have prior sexual arrest records. The effect of age and prior offending behavior has an even stronger effect on nonsexual reoffending. Offenders released from general population prisons after serving time for a rape conviction who are between the ages of 19 and 31 and who had at least two prior nonsexual arrests are 18 times more likely to commit a new nonsexual offense on release compared to offenders released from ADTC on a incest and molestation conviction who are older than 50 and had fewer than two prior nonsexual offense arrests.

Much of the sex offender monitoring legislation is motivated by an attempt to reduce the public's risk of victimization by offenders with a history of sexual offending. The particular characteristics of monitoring in terms of timing, duration, and source are less scientifically based and more idiosyncratic to state (Cornwell et al., 1999; Zgoba et al., 2003). The findings suggest that monitoring strategies at least in terms of timing might be more effective if targeted by type of offense. The likelihood of sexual reoffending continues to increase with time, whereas the likelihood of nonsexual offending is generally highest in the first few years

postrelease. This finding suggests that continued, long-term monitoring and supervision of sexual offenders is consistent with public safety objectives, but closer monitoring of nonsexual offending behavior is also critical in the years immediately following release from prison, especially for offenders with rape convictions who did not receive treatment for sexual offending in prison.

Limitations

This study, although addressing a number of the methodological limitations associated with earlier studies, has a number of important limitations. Most important is the lack of a randomized, controlled design. The ADTC sample and the general population sample of sexual offenders were classified differently by the New Jersey Department of Corrections. The sexual offenders at the ADTC are classified as repetitive and compulsive and, as such, may have systematically different pathologies affecting their reoffending behavior, motivating the decision to provide them with treatment during incarceration. Although the type of uncontrolled design used here is often unavoidable (Furby et al., 1989; McGrath, Cumming, Livingston, & Hoke, 2003; Miner, 1997), it does limit the ability to rigorously and reliably test for the effect of treatment on recidivism. The test for a treatment effect is a conservative one because it could be reasonably assumed that the ADTC group would have had an elevated level of sexual recidivism compared to the general population group without treatment. The distinction in the comparison of offenders released from the ADTC was discussed in the landmark article by Furby et al. (1989):

> One exception to this general design principle occurs when the nature of the preexisting difference favors the control group. For example, in New Jersey, individuals with a history of chronic sexual offending are assigned to the Adult Diagnostic and Treatment Center (ADTC), where they receive specialized treatment. Men with few or no prior sex offenses are sentenced to prison or probation. If those men sent to prison served sentences equivalent in length to those of men assigned to the ADTC, and if the ADTC group showed a lower post-release offense rate than did the prison group, one could reasonably conclude the treatment was effective (although one could not identify just how effective). If the treatment group showed a higher post-release rate, then one could not interpret the results, because a higher rate was to be expected anyway, and the treatment might still have had an impact. (p. 7)

Given that no significant difference in sexual recidivism was found between the ADTC and general population samples might suggest that treatment was, indeed, effective.

Another set of limitations concerns the inadequacies of the data. The information used here was drawn from official records. It is well known that official records underrepresent the frequency of criminal behavior in the community, particularly regarding incest and child molestation (APA, 1999; Belknap, 2000; La Fond, 2005). Also, some criminogenic and treatment information relevant to both the preincarceration and postincarceration period, which might affect recidivism, was unavailable in official records, resulting in an omitted variables problem. These data problems are common to all empirical studies in this area. Although considerable effort was expended to minimize missing information, in the end, it was necessary to rely on official records—the most consistent and reliable data available to researchers. Nonetheless, it is important when interpreting these findings to remember that they under-

represent the actual level of offending behavior, that they only explain a small fraction of the variation in reoffending behavior, and that some effects, although not reaching statistical significance because of small sample sizes, may be substantially important.

Conclusion

In summary, the results presented here are consistent with previous research findings on the effectiveness of sexual offender treatment in reducing recidivism rates (APA, 1999; Freeman-Longo et al., 1995; Hall, 1995; McGrath et al., 2003; Zgoba et al., 2003). However, although the results indicated reductions in recidivism, it only did so for rates of nonsexual recidivism. Sexual offenders classified as repetitive and compulsive at the ADTC (treated group), which carries an implicit statement of high-risk status, had similar levels of sexual recidivism (approximately 1% higher) but lower rates of nonsexual recidivism compared to sexual offenders released from general population prisons (untreated group). The likelihood of reoffending, both sexual and nonsexual, was strongly predicted by age at release and prior arrest history. Also, patterns of reoffending behavior appear to vary throughout time, with the risk of nonsexual offending highest in the years immediately following release, whereas the risk of sexual reoffending follows a fairly consistent trend throughout time. The findings, although not conclusive, illustrate the value of disaggregating sexual offender types and offense types into more conceptually meaningful groupings. Important intragroup differences are concealed in broad aggregates, and their repetitive use by researchers limits the ability to measure the true impact of treatment on recidivism.

Future Research

Future research would benefit from controlled, and ideally randomized, designs to ensure that sample selection and treatment effects are not conflated. Applied research is always limited by constraints of data collection, retrieval systems, and policies that were not designed with research in mind. These constraints lead to gaps in the data (Zgoba et al., 2003). Future efforts should be directed at closing these gaps by way of standardizing information between agencies and among states. Although this task seems insurmountable now, small steps need to be taken toward the promotion of data collection initiatives and empirical research. Collaboration among agencies must be encouraged, while providing the recognition that empirical research offers invaluable information for treatment programs. Without evaluation, treatment programs have no method by which they can continuously assess the effectiveness of their program. In the final analysis, whether treatment matters depends critically on the combined effects of research and treatment methodologies, both of which are improving with time.

Note

1. Established in 1976 to treat repetitive and compulsive male sexual offenders, the Adult Diagnostic and Treatment Center is the only facility in New Jersey, as well as only one of a handful in the country, that provides for the specific treatment and incarceration of male sexual offenders and predators. There are approximately 679 male sex offenders incarcerated there. The ADTC is 1 of 13 institutions in the New Jersey Department of Corrections that incarcerate male offenders.

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